

REMARKS

Please charge any deficiencies in fees to have this amendment entered to our deposit account No. 500687.

Reconsideration and allowance of the subject application are respectfully requested.

Claims 16-31, 33 and 35-40 are pending in the application.

The undersigned thanks Examiner Syed A. Islam for the courtesy extended during the personal interview of 17 July 2008. The claim amendments set forth above and arguments presented below are commensurate with the discussions provided during the interview.

Claim 16 has been amended to further emphasize that the screen pattern on the surface of the relief is different from the line pattern. The line pattern is used for burning the relief. The screen pattern is microscopic and provides a strong luminescence. Basis for this amendment can be found at page 1, line 35 through page 2, line 19. No new matter has been added.

The rejection of claims 21 and 22 under 35 U.S.C. § 112, is obviated by the amendment to claim 21 as set forth above. Claim 21 has been amended to correct the antecedent basis. No new matter has been added. Accordingly, withdrawal of the Section 112 rejection is respectfully requested.

The rejection of claims 16-21 under 38 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,612,055 (Bradford) in view of U.S. Patent No. 5,880,430 (Wein) is respectfully traversed. The claimed invention is not obvious over the theoretical combination of Bradford and Wein for the following reasons.

One of ordinary skill in the art trying to make an edge illuminated sign would not be motivated to combine a reference teaching how to make a sign (Bradford) with a reference teaching how to make a wax casting (Wein). Wein provides no teachings on how to make a sign. For this reason alone, the Section 103 rejection should be withdrawn.

Even if Bradford and Wein were combined, the combination of Bradford and Wein does not teach or even suggest in the slightest that the "entire relief of the figure is recessed in the light guiding material." Wein does not even teach using a

light guiding material. The wax relief in Wien is a mold, not an edge illuminated sign. For this reason alone, the Section 103 rejection should be withdrawn.

The Examiner admits that Bradford does not teach "controlling the laser beam using a master program that makes the laser beam scan a line pattern at the same time as the laser beam is modulated by a frequency that controls the amplitude of the input power to the laser and thereby creates a screen pattern at the same time as an image program is superposed to control the amplitude and scanning frequency." Wein does not supply this deficiency of Bradford.

Wein discloses only burning a single layer of material. See abstract, and column 3, lines 52-65 of Wein. Wein absolutely does not teach or even suggest in the slightest that the laser beam is modulated by a frequency during burning. Indeed, Wein teaches in direction away from the claimed invention by teaching to burn only a single layer and also by teaching that laser is adjusted before burning (see column 4, lines 18-20 of Wein). See column 4, lines 64-65 of Wein, which specifically teaches that the burning is done without varying the laser intensity. See also column 4, lines 18-21, which teaches that the laser is adjusted before burning. Column 3, line 54 through column 4, line 5, does not teach varying the intensity of the laser during burning, but rather varying laser intensity prior to burning to a desired depth.

Wein teaches to burn to different depths by using materials having different resistances to the laser burning so that they burn at different rates. See the paragraph at column 4, lines 45-58. This is confirmed by the subsequent paragraph at column 4, lines 59-65, which states "In this manner" (referring to the previous paragraph) a "relatively unskilled operator of the laser etching device [can] produce etchings of the proper depth easily and without any experimentation with varying the laser intensity." In this manner, Wein specifically teaches against burning to different depths by varying the laser intensity during the burning process. Thus, the combination of Bradford and Wein teaches away from the claimed invention. For this reason alone, the Section 103 rejection should be withdrawn.

Wein also does not teach forming a microscopic screen pattern over the surface of the relief at the same time the relief is formed by burning away the light guiding material. Wein does not even teach using a light guiding material, since

Wein is not concerned with transmitting light, but rather forming a casting. Thus, the combination of Wein and Bradford also cannot teach these features.

The claimed combination of a microscopic screen pattern over the surface of the relief and the entire relief of the figure being recessed in the light guiding material provides the unexpected advantage of a strong luminescence. Neither of the cited references teaches or suggests the unexpected advantage of providing a strong luminescence.

In view of the lack of motivation to combine the references, the many differences between the claimed invention and the theoretical combination of references, and the unexpected advantages of the claimed invention, withdrawal of the Section 103 rejection is respectfully requested.

The rejection of claims 22-25, 33, 36, 39 and 40 under 35 U.S.C. § 103 as being unpatentable over Bradford in view of Wein as applied to claim 21 above, and further in view of U.S. Patent No. 3,241,256 (Viret) is respectfully traversed. The claimed invention is not obvious over the theoretical combination of references for the reasons provided above and for the following reasons.

The combination of Bradford and Wein does not teach "a fine mesh to the surface in which the fine mesh has a fineness proportional to the luminescence desired in different positions of the background and that the fineness is also proportional to the distance to the edge-illumination such **that the fineness is greater the greater the distance from the edge-illumination**" in combination with having fully recesses figures in the light guiding material facing the back of the sign. Viret does not provide the deficiencies of Bradford and Wein.

In Fig. 7 of Viret, the lamps 50 and 51 are shown illuminating the edges of the indicator. The dots 22 are shown being larger or more dense at a greater distance from the lamps 50 and 51. See also column 3, line 64 of Viret. However, Viret does not teach increasing the fineness of a mesh as the distance from the edge-illumination increases. For this reason alone, the Section 103 rejection should be withdrawn.

The theoretical combination of Viret, Bradford and Wein would result in a very different sign in which a edge illumination (lamps 50 and 51 of Viret) are used to illuminate front facing figures that are not fully recessed in the light guiding material (Bradford) using a series of "holes" in which the size the dots increases different

amounts (Viret). Wein does not even teach making a sign, but rather a wax casting.

This is very different from the claimed invention in which the figures are rear facing, the figures are fully recessed in the light guiding material, and a mesh is used in which the fineness of the mesh increases as the distance from the edge-illumination increases.

Furthermore, the dots 22 of Viret would cover any figures in the sign of Bradford, since a continuous layer of dots 22 is shown in Fig. 7 of Bradford. In contrast, the claimed mesh is only on the surface of the light guiding material, not the figures which are recessed in the light guiding material.

In view of the differences between the claimed invention and the theoretical combination of references, withdrawal of the Section 103 rejection is respectfully requested.

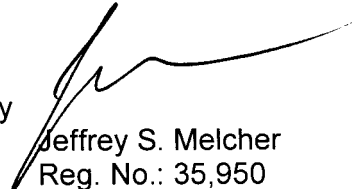
The rejection of claims 26-28 and 35 under 35 U.S.C. § 103 as being unpatentable over Bradford in view of Wein and Viret as applied to claim 25 above, and further in view of U.S. Patent No. 4,166,332 (Donovan) is respectfully traversed. The claimed invention is not obvious over the theoretical combination of references for the reasons provided above and Donovan does not supply the deficiencies of Bradford, Wein and Viret. Accordingly, withdrawal of the Section 103 rejection is respectfully requested.

The rejection of claims 29-31 under 35 U.S.C. § 103 as being unpatentable over Bradford in view of Viret as applied to claim 23 above, and further in view of U.S. Patent No. 4,028,828 (Chao) is respectfully traversed. The claimed invention is not obvious over the theoretical combination of Bradford and Viret for the reasons provided above and Chao does not supply the deficiencies of Bradford and Viret. Accordingly, withdrawal of the Section 103 rejection is respectfully requested.

In view of all of the rejections of record having been addressed, Applicant submits that the present application is in condition for allowance and notice to that effect is respectfully requested.

Respectfully submitted,
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